Appendix A: Supported Configurations

The COE is an open architecture and as such is not tied to a specific hardware platform. It emphasizes use of industry standard software components, including a POSIX-compliant operating system and windowing standards. However, availability of sufficient resources to perform adequate testing necessitates a practical limit on the number of configurations supported.

The list of supported hardware and software components is growing as the COE evolves to meet operational requirements. This appendix will be updated periodically as new platforms are supported, or as vendor software versions change. An up-to-date list of all COTS products and their version is included with each COE release, and with each release of a COE-based system. Refer to the most recent *DII COE Baseline Specifications* document for an up-to-date description of supported platforms.

A-1. Platforms Supported

This section describes the current configurations for Unix and NT platforms.

A-1.1 Unix Configurations

The COE is available on Hewlett-Packard HP 700 series computers, and on Sun SPARC series computers. Work to port the COE to other Unix platforms is underway, but at the time of the writing of this document, they have not been released. Additional platforms include IBM RISC 6000, DEC Alpha, and SGI computers. Contact the DII COE Chief Engineer for availability of other platforms.

Table A-1 lists the present configurations for DII COE 3.0, and for selected COTS products contained in the COE. The presently selected vendor is indicated for COTS products. This list is not intended to be exhaustive. It lists only those products that are part of the COE kernel, or are part of Infrastructure Services.

Precise hardware requirements for memory, disk space, etc. is a function of whether the workstation is a database server, an application server, or client workstation, and whether the workstation is standalone or on a network. Refer to the DII COE Chief Engineer for hardware configuration options.

	HP 700 Series	SPARC Series
Operating System	HP-UX 9.0.7, 10.10	Solaris 2.4, 2.5.1
X Windows	X11R5	X11R5
Motif[1]	1.2.4	1.2.4
TriTeal CDE	4.0	4.0
Transarc DCE	1.1	1.1
NewsPrint	N/A	2.5
Sybase	10.0.2a	10.0.2a
Oracle	7.1.3	7.1.3
Informix	TBD	TBD
Netscape Browser	3.0	3.0

Table A-1: Supported Unix Configurations

[1] Developers should use the Motif libraries distributed with TriTeal CDE. The present version supported by TriTeal is 1.2.4.

Note: An upgrade to HP-UX 10.30, X11R6, Motif 2.x, and TriTeal CDE 4.1 are planned. Upgrades to more recent Oracle, Sybase, and Informix products are also planned, but must be coordinated with affected services and agencies. All COTS upgrades are coordinated through the DII COE CCB so that affected services/agencies are well aware of the planned upgrades so that they can participate in the scheduled release of product upgrades. Contact the DII COE Chief Engineer for target release dates.

A-1.2 NT Configurations

The COE for NT platforms is presently available only for Intel-based computers (e.g., 80x86, Pentium). Commercial industry has implemented the Microsoft NT operating system on selected other platforms (e.g., DEC), but such platforms are not presently in wide use in the DII community.

On PCs, only NT is supported. Windows 3.1 and Windows 3.11 are not supported. Limited testing of the COE has been performed on Windows 95, but it is not currently a supported platform because of known security problems within the operating system. When the security problems are resolved, Windows 95 may be added to the list of supported platforms.

The COE requires that all hardware be NT-compliant (as defined by the document *Microsoft Windows NT Hardware Compatibility List #4094*), because Microsoft does not guarantee that NT will run on systems with hardware not listed in the referenced document. Minimum hardware requirements for a PC workstation are:

- 66 MHz 386 (90 MHz Pentium recommended)
- 16 MBytes RAM for Windows NT (32 MBytes recommended)
- 200 MBytes disk space required (500 MBytes recommended)
- 3.5" floppy diskette drive
- LAN Interface card required to access networked applications
- VGA or SVGA graphics card compatible with Windows NT, and capable of minimum 640x480 graphics in 256 colors
- 15" SVGA Monitor (17" recommended)

Note: Memory requirements stated here are the minimum for the kernel COE. 32 MBytes is the minimum for most mission applications. That is, for most mission applications not provided by commercial office automation products.

The following items are optional, but recommended. It is not necessary for every workstation to contain the additional hardware, but that a sufficient number of workstations on the LAN contain the additional hardware to meet site-specific operational needs.

- 2x speed CD ROM (4x or higher recommended)
- 16-bit SoundBlaster® compatible card
- Tape drive for data archival
- HP Laserjet III® compatible laser printer
- Color printer for briefing slides

Table A-2 lists the presently supported products for the NT platform. This list is not intended to be exhaustive. It lists only those products that are part of the COE kernel or are part of Infrastructure Services.

Proper operation of the COE also requires installation of the appropriate Microsoft Service Pack. Microsoft periodically releases Service Packs (e.g., patches). Refer to the latest *DII COE Release Notes for NT* for information about the required Service Pack.

	NT (80x86, Pentium Only)
Operating System	NT 3.51, 4.0
Transarc DCE	1.1
Netscape Browser	3.0

Table A-2: Supported NT Configurations

A-2. DII COE Kernel Platform Certification Program

Porting the DII COE to new hardware platforms or operating systems consumes engineering resources. This is usually only a small fraction of the testing, configuration management, and logistics support effort required for life-cycle maintenance for each platform. For this reason, selection of supported platforms is driven by community requirements.

Some communities require availability of the COE, especially the kernel, on platforms that are not in wide spread use within the DII community at-large. To support such requirements, the DII COE Chief Engineer is formulating a DII COE Kernel Platform Certification (KPC) program. This program applies to POSIX-based application platforms and is in response to requests from the Information Technology vendor community.

The DII COE Chief Engineer is seeking comments from interested parties on the overall program concept, with a special focus on evaluation criteria, and process for certification. Interested parties should contact DISA per the instructions below to receive a copy of the full program description. Comments may be submitted as indicated below. If issues with sufficient interest arise, a meeting with interested parties may be scheduled to discuss the program.

A-2.1 Program Summary

The purpose of the DII COE Kernel Platform Certification (KPC) program is to provide criteria and a process for certification of POSIX-based application platforms as DII COE Compliant. Criteria for DII COE Kernel Platform Certification are defined in accordance with the following engineering documents:

1. *Defense Information Infrastructure (DII) Common Operating Environment (COE) Integration and Runtime Specification (I&RTS)*, this document,

2. *Defense Information Infrastructure (DII) Common Operating Environment (COE) Baseline Specifications*, Version 3.0 - 3.1, October 1996 (or most recent version).

These documents are available on the World-Wide-Web at URL:

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http://spider.osfl.disa.mil/dii
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Note: The lowercase letter "`l`" is used in "`osfl`" and not the number "`1`."

This program will establish a process that encourages Information Technology (IT) industry suppliers to provide DII COE kernel functionality in their application platform products. DISA will investigate an applicant claim of DII COE conformance and make a list of application platforms for which compliance is claimed available to the public.

A-2.2 Applicability of Certification

The DII COE kernel platform certification process is available for POSIX-based DII COE application platforms. Note that this program applies only to the DII COE kernel as defined in the *DII COE Baseline Specifications* document, and not to the entire COE. DII COE certification for mission-application software is specifically out of the scope of this program.

This certification program provides an opportunity for vendors of POSIX-based application platforms to enhance the appeal of their product for DOD customers with a need for such platforms. DOD CINCs, Services, and Agencies that procure and use POSIX-based DII COE application platforms may use this certification program as one measure of the suitability of the product. The decision to require DII COE kernel platform certification is made by the procuring DOD CINC, Service, or Agency.

A-2.3 Porting Package Contents

Vendors or program managers who require the COE kernel on a non-supported platform or operating system may request a "porting package" from the DII COE Engineering Office. The requesting party may then port the kernel to the new environment and submit the results to the DII COE Chief Engineer for certification. The information provided in the porting package includes:

- Source code to GOTS products in the kernel
- Configuration information for COTS products in the kernel
- API documentation for products in the kernel
- Sample kernel documentation to illustrate the expected end result
- Test suite for testing the ported software
- Magnetic media containing the above components
- Manifest listing all files in the porting package.

This approach allows new hardware/operating system vendors and program managers to accelerate availability of the COE on new platforms. It also gives the vendor/program manager the option of performing a port themselves, or soliciting DISA support and participation in the port.

A-2.4 Program Restrictions

There are certain restrictions to the self-certification program, whether requested by a vendor or by a program manager.

1. The program applies only to the DII COE kernel, not to the entire COE.

2. Source code is provided only for GOTS products, not COTS products, in the kernel.

3. The porting package is provided on an "as is" basis with no guarantees or estimates on DISA's part for the amount of effort required to do the port.

4. The requester must sign a non-disclosure, non-distribution agreement to receive the source code.

5. The requester may not extend the kernel by adding new features to the GOTS products.[2]

6. Continued support for the new environment is the responsibility of the requester. DISA, at its discretion, may elect to provide support for the new environment depending upon requirements established by the DII community.

7. The requester must submit the completed port to the DII COE SSA for certification as COE compliant.

8. The requester is responsible for obtaining any COTS products required for the kernel, and for any associated licensing required while DISA tests the port for certification purposes. The COTS products obtained must be approved by the DII COE Chief Engineer as suitable functional equivalents of COTS products used in the kernel for supported platforms.

For more details on this program, and for information on the amount of support available from DISA to aid in the porting effort, contact the DII COE Engineering Office.

> **Note:** The self-certification program is not restricted to Unix platforms. It is also available for those wishing to port to NT platforms.

A-2.5 Comment Submission Procedure

A *DII COE Kernel Platform Certification Program* description document is available on the DII COE Website at URL

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http://spider.osfl.disa.mil/dii
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[2] The restriction to not provide "value added" capabilities is an important one. The intent is to avoid vendor-unique implementations which introduce capabilities in one environment that are not available on another. Such a situation would defeat the whole purpose in having a COE in the first place.

The final page of the document provides instructions and a suggested format for comments. Comments in the appropriate format may be sent to the following address:

Mr. Fritz Schulz
Code: DISA/JEXF
5600 Columbia Pike
Falls Church, VA 22041
Attention: DII COE Kernel Platform Compliance Program

Phone: (703) 681-2350
DSN: 761-2350
Fax: (703) 681-2813
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